

# Jefferson Parish Shoreline Restoration and Protection

(Pontchartrain Coastal Lines of Defense Program)

Lake Pontchartrain Basin Foundation – Coastal Sustainability Program

Jefferson Parish Shoreline Restoration and Protection is one of ten priority project areas within the Pontchartrain Coastal Lines of Defense Program for the Pontchartrain Basin (Figure 1). All projects within this program provide significant habitat restoration and flood protection. The levee in Jefferson Parish has no armoring from wave action caused by severe weather. An offshore breakwater would stabilize the shoreline and dampen wave energy to create a quiet water area shoreward. This protected area can be developed into a fringing marsh. The combined breakwater and marsh provide additional protection from wave energy during a severe storm. The fringing marsh restores the most critical and productive habitat of the lake's former shoreline. The restored shoreline is a significant additional amenity to a significant recreational corridor.

The Pontchartrain Coastal Lines of Defense Program represents an integrated set of projects which is based on the highly vetted Comprehensive Habitat Management Plan for the Pontchartrain Basin (2006). The CHMP was developed over two years by a team of qualified engineers, biologists and physical scientists including representation from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, University of New Orleans, Southeastern University, LA Department of Nature Resources, Pontchartrain Institute for Environmental Sciences and LSU AgCenter. The plan was peer-reviewed by representatives from National Marine Fisheries Service, Natural Resource Conservation Service, LSU, U.S. Geological Survey, LA Geological Survey, The Nature Conservancy, and EPA Gulf of Mexico Program Office and the Coalition to Restore Coastal Louisiana.

The final CHMP is a federally approved plan by the EPA Region VI office. The Coalition to Restore Coastal Louisiana and the Louisiana Wildlife Federation have passed resolutions endorsing both the Comprehensive Habitat Management Plan and the Pontchartrain Coastal Lines of Defense Program. Since its release, the Pontchartrain Coastal Lines of Defense Program has been presented to numerous parish, state and federal officials. It is also publicly accessible on the web.

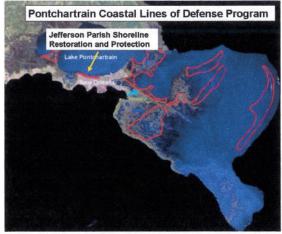


Figure 1: Location of the Jefferson Parish Shoreline Restoration and Protection Project. The project includes construction of an offshore breakwater and fringe marsh along the Lake Pontchartrain shoreline adjacent to the Jefferson Parish hurricane protection levee. This project is one ten projects in the Pontchartrain Coastal Lines of Defense Program.

Lake Pontchartrain Basin Foundation, 2006, Comprehensive Habitat Management Plan for the Pontchartrain Basin, http://www.saveourlake.org/wetlands.htm on April 2006

Lake Pontchartrain Basin Foundation, 2006, Pontchartrain Coastal Lines of Defense Program, <a href="http://www.saveurlake.org/wetlands.htm">http://www.saveurlake.org/wetlands.htm</a> on April 2006

Lopez, J. A., 2006, The Multiple Lines of Defense Strategy to Sustain Coastal Louisiana, white paper, Lake Pontchartrain Basin Foundation

# Fact Sheet - Jefferson Parish Shoreline Restoration and Protection

Project Name: Jefferson Parish Shoreline Restoration and Protection

# **Coastal Planning**

Comprehensive Habitat Management Plan - endorsed by CRCL and LA Wildlife Federation

# **Project Location**

Region 1, Pontchartrain Basin, Jefferson Parish

#### Problem

The Jefferson Parish shoreline is eroding and approaching the hurricane protection levee and recreational amenities such as the bike path. Continued shoreline retreat will weaken the levee during calm weather conditions and increase risk of breaching during severe weather events. The natural marsh shoreline is almost entirely lost in Jefferson Parish. Submerged aquatic vegetation is not present. Several outfall canals impair water quality of the lake's near shore area.

# **Proposed Project Features**

- Offshore breakwater entire length of Jefferson Parish lake shoreline
- Create a narrow band of fringing marsh behind breakwater
- Supplement habitat with reef balls and promote SAV re-vegetation

#### Goals

- Stabilize the shoreline
- Provide additional wave protection to the hurricane protection levee
- Restore the marsh shoreline
- Promote SAV growth
- Improve water quality
- Enhance recreational fishing opportunities

### **Preliminary Project Benefits**

Protect 10 miles of hurricane protection levee Create 40 acres of fringing marsh Create or enhance 80 acres of SAV habitat

# **Identification of Potential Issues**

# **Preliminary Construction Costs**

Total estimated construction cost is \$62.5M Offshore breakwater \$60M Habitat restoration \$2.5M

#### **Preparers of Fact Sheet**

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Figure 2: Location of the Jefferson Parish Shoreline Restoration and Protection project, which includes an offshore breakwater and marsh creation.

# Shoreline Restoration and Protection Jefferson Parish Existing shoreline position Levee Protected side Flood Side Fill & Marsh creation Submerged Aquatic Vegetation

**Diagrammatic Profile** 

Figure 3: Illustration of potential design relationships between the existing levee and the project features, including an offshore breakwater, marsh creation and SAV enhancement.

Approximately 10:1 Vertical Exaggeration LPBF - Coastal Sustainability Program 2005